BEFORE THE ARIZONA CORPORATION COMMISSION

JIM IRVIN
COMMISSIONER - CHAIRMAN
RENZ D. JENNINGS
COMMISSIONER
CARL J. KUNASEK
COMMISSIONER

IN THE MATTER OF THE PETITION OF AMERICAN COMMUNICATIONS SERVICES, INC. AND AMERICAN COMMUNICATIONS SERVICES OF PIMA COUNTY, INC. FOR ARBITRATION WITH U S WEST COMMUNICATIONS, INC. OF INTERCONNECTION RATES, TERMS, AND CONDITIONS PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-3021-96-448 DOCKET NO. U-3245-96-448 DOCKET NO. E-1051-96-448
IN THE MATTER OF THE PETITION OF AT&T COMMUNICATIONS OF THE MOUNTAIN STATES, INC. FOR ARBITRATION WITH U S WEST COMMUNICATIONS, INC. OF INTERCONNECTION RATES, TERMS, AND CONDITIONS PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-2428-96-417 DOCKET NO. E-1051-96-417
IN THE MATTER OF THE PETITION OF MFS COMMUNICATIONS COMPANY, INC. FOR ARBITRATION WITH U S WEST COMMUNICATIONS, INC. OF INTERCONNECTION RATES, TERMS, AND CONDITIONS PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-2752-96-362 DOCKET NO. E-1051-96-362
IN THE MATTER OF THE PETITION OF TCG PHOENIX FOR ARBITRATION WITH U S WEST COMMUNICATIONS, INC. OF INTERCONNECTION RATES, TERMS, AND CONDITIONS PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-3016-96-402 DOCKET NO. E-1051-96-402

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IN THE MATTER OF THE PETITION OF MCIMETRO ACCESS TRANSMISSION SERVICES, INC. FOR ARBITRATION OF THE RATES, TERMS, AND CONDITIONS OF INTERCONNECTION WITH U S WEST COMMUNICATIONS, INC. PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-3175-96-479 DOCKET NO. E-1051-96-479
IN THE MATTER OF THE PETITION OF BROOKS FIBER COMMUNICATIONS OF TUCSON, INC. FOR ARBITRATION OF THE RATES, TERMS, AND CONDITIONS OF INTERCONNECTION WITH U S WEST COMMUNICATIONS, INC. PURSUANT TO § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-3009-96-478 DOCKET NO. E-1051-96-478
IN THE MATTER OF THE PETITION OF SPRINT COMMUNICATIONS COMPANY, L.P. FOR ARBITRATION WITH U S WEST COMMUNICATIONS, INC. OF INTERCONNECTION RATES, TERMS, AND CONDITIONS PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-2432-96-505 DOCKET NO. E-1051-96-505
IN THE MATTER OF THE PETITION OF GST TUCSON LIGHTWAVE, INC. FOR ARBITRATION OF THE RATES, TERMS, AND CONDITIONS OF INTERCONNECTION WITH U S WEST COMMUNICATIONS, INC. PURSUANT TO § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-3155-96-527 DOCKET NO. E-1051-96-527
IN THE MATTER OF THE PETITION OF COX ARIZONA TELCOM, INC. FOR ARBITRATION WITH U S WEST COMMUNICATIONS, INC. OF INTERCONNECTION RATES, TERMS, AND CONDITIONS PURSUANT TO 47 U.S.C. § 252(b) OF THE TELECOMMUNICATIONS ACT OF 1996.	DOCKET NO. U-3242-97-017 DOCKET NO. E-1051-97-017 DECISION NO. 60635 **OPINION AND ORDER**

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DATE OF PRE-ARBITRATION CONFERENCE:	November 14, 1996
DATES OF ARBITRATION:	November 18, 19, 20, 21, 22, 25, 26 and 27, 1996
PLACE OF ARBITRATION:	Phoenix, Arizona
PRESIDING ARBITRATORS:	Jerry Rudibaugh, Lyn Farmer, and Barbara M. Behun
APPEARANCES:	FENNEMORE CRAIG, by Mr. Timothy Berg on behalf of U S WEST Communications, Inc.; and Norton Cutler and Kathryn E. Ford on behalf of U S WEST, Inc. and PERKINS COIE, by Mr. Robert L. Deitz on behalf of U S WEST Communications, Inc.; BROWN & BAIN, P.A., by Mr. Lex Smith on behalf of TCG Phoenix; BROWN & BAIN, P.A., by Mr. Michael Patten and KELLEY DRYE & WARREN, LLP, by Mr. Chip Yorkgitis on behalf of American Communications Services, Inc. and American Communications Services of Pima County, Inc.; OSBORN MALEDON, P.A. by Ms. Joan S. Burke and DAVIS WRIGHT TREMAINE, by Mr. Daniel Waggoner, Ms. Mary E. Steele, and Mr. Richard S. Wolters on behalf of AT&T Communications of the Mountain States, Inc.; SWIDLER & BERLIN, by Mr. Douglas G. Bonner on behalf of MFS Communications Company, Inc. and GST Tucson Lightwave, Inc.; LEWIS & ROCA, LLP, by Mr. Thomas H. Campbell on behalf of MCImetro Access Transmissions Services, Inc.; MCI TELECOMMUNICATIONS CORPORATION, by Mr. Thomas F. Dixon, Jr., Senior Attorney, on behalf of MCImetro Access Transmission Services, Inc.; SNELL & WILMER, LLP, by Mr. Thomas L. Mumaw on behalf of Brooks Fiber Communications of Tucson, Inc.; Mr. Donald A. Low on behalf of Sprint Communications Company, L.P.; Mr. Paul Michaud on behalf of the Residential Utility Consumer Office; and Mr. Christopher C. Kempley, Assistant Chief Counsel, on behalf of the Utilities Division of the Arizona Corporation Commission.

BY THE COMMISSION:

In separate dockets, each of the above parties filed with the Arizona Corporation Commission ("Commission") a petition for arbitration of interconnection rates, terms and conditions with U S WEST Communications, Inc. ("U S WEST"), pursuant to 47 U.S.C. § 252(b) of the Telecommunications Act of 1996 ("Act"). Decisions regarding issues raised in each party's arbitration have been or will be handled separately, with the exception that many of the pricing issues were either resolved on an interim basis, to be trued up after this Decision, or were deferred to this Decision.

I. INTRODUCTION

A. Legal and Procedural History

The Act, effective February 8, 1996, sets forth the duties of telecommunications carriers and establishes particular obligations of local exchange carriers ("LECs") regarding interconnection, the provision of telecommunications services on an unbundled basis, and the offering of telecommunications services for resale at wholesale rates. The Act also instructed the Federal Communications Commission ("FCC") to issue regulations interpreting the Act by August 8, 1996. On July 2, 1996, the FCC issued *Telephone Number Portability*, CC Docket No. 95-116, First Report and Order and Further Notice of Proposed Rulemaking, FCC 96-268 ("TNP Order"), which established rules to provide for a customer who changes LECs to keep the same telephone number.[1] On August 8, 1996, the FCC released *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, FCC 96-325 ("FCC Order") and *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Second Report and Order and Memorandum Opinion and Order, FCC 96-333, which established initial rules ("FCC Rules") to accomplish the goals of the Act.

Concurrently, the Commission approved A.A.C. R14-2-1301 through R14-2-1311 ("Interconnection Rules"), in Decision No. 59761 (July 22, 1996), which govern interconnection of networks of incumbent LECs ("ILECs") and competing LECs ("CLECs"). A.A.C. R14-2-1501 through R14-2-1507 ("Arbitration and Mediation Rules"), approved in Decision No. 59762 (July 22, 1996),

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[1] In the individual arbitration Decisions, the Commission has decided interim number portability issues in accordance with the FCC's methodology, and incorporates that resolution herein.

authorized the Hearing Division to establish procedures and conduct arbitrations to resolve disputes regarding interconnection, the provision of telecommunications services, and resale services.

The Act provides for a CLEC to attempt to negotiate interconnection terms directly with the ILEC, and if unsuccessful, either party may request the State commission to arbitrate the unresolved issues. The Act requires the State commission to resolve the remaining issues within 180 days of a telecommunications carrier's initial interconnection request. Pursuant to the Act, § 252, just and reasonable rates for interconnection and network elements are to be based on the cost of providing the interconnection or network element. The rates must be nondiscriminatory and may include a reasonable profit. The wholesale rates for resale services are to be the ILEC's retail rates excluding costs of marketing, billing, collection and other costs avoided when selling resale rather than retail.

As stated in the Act, § 252(d)(1):

> INTERCONNECTION AND NETWORK ELEMENT CHARGES. - Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2) of section 251, and the just and reasonable rate for network elements for purposes of subsection (c)(3) of such section -
>
> (A) shall be -
>
> (i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and
>
> (ii) nondiscriminatory, and
>
> (B) may include a reasonable profit.

The Act requires the following regarding the sale of services available for resale, at § 252 (d)(3):

> WHOLESALE PRICES FOR TELECOMMUNICATIONS SERVICES. - For the purposes of section 251(c)(4), a State commission shall determine wholesale rates on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier.

The FCC's Rules require the use of total element long run incremental cost ("TELRIC") methodology to compute rates. TELRIC methodology includes the forward-looking costs that can be attributed directly to the provision of services using that element, and includes a reasonable share of an ILEC's forward-looking joint and common costs. The FCC Order established default proxy ceilings or ranges which the FCC determined to be reasonable and in compliance with TELRIC methodology. A.A.C. Rule 14-2-1309 requires the use of total service long run incremental costs ("TSLRIC") to determine costs. TSLRIC is the total additional cost incurred by a telecommunications company to

produce the entire quantity of a service, given that the company already provides all of its other services. TSLRIC is based on the least cost, most efficient technology that is capable of being implemented at the time the decision to provide the service is made.

American Communications Services, Inc. and American Communications Services of Pima County, Inc. (collectively "ACSI"), AT&T Communications of the Mountain States, Inc. ("AT&T"), MFS Communications Company, Inc. ("MFS"), TCG Phoenix ("TCG"), MCImetro Access Transmission Services, Inc. ("MCI"), Brooks Fiber Communications of Tucson, Inc. ("Brooks"), Sprint Communications Company, L.P. ("Sprint"), and GST Tucson Lightwave, Inc. ("GST") have each requested arbitration of unresolved issues arising from its attempt to enter into an interconnection agreement with U S WEST. Cox Arizona Telcom, Inc. ("Cox") agreed that it would be bound by the determinations made in this consolidated docket. Given the short time frame in which the Commission had to resolve the disputed interconnection issues, on September 10, 1996, a Procedural Order was issued which consolidated portions of the arbitration proceedings filed by that date to consider the cost studies submitted by U S WEST in each of the existing dockets.

The Procedural Order indicated that interim rates would be set in each docket where relevant in accordance with the FCC Order, at the proxy ceilings or mid-points of proxy ranges, unless a party showed that an alternative interim price consistent with the proxies would be appropriate. The interim rates were to be subject to true-up upon establishment of prices based upon Commission-approved cost studies. As subsequent petitions for arbitration were filed, the cost portion of those proceedings were also consolidated into the cost study proceeding

On September 27, 1996, the United States Court of Appeals for the Eighth Circuit ("Court") issued an Order Setting Hearing and Imposing Temporary Stay regarding the pricing provisions of the FCC Order and Rules. On October 15, 1996, the Court stayed the operation and effect of the FCC's "pricing provisions and the 'pick and choose' rule" pending the Court's final determination of the issues raised in the petitions for review. On January 17, 1997, oral arguments were presented to the Court regarding the appealed provisions of the FCC Order and Rules. As a result of the stay, the Commission approved interim prices that were reasonable based upon the information provided at the individual arbitrations. In some cases, the prices were the average of the FCC's proxy prices and U S WEST's

proposed prices.

On July 18, 1997, the Court issued its Decision regarding the FCC Order and Rules. The Court stated:

> In total, we vacate the following provisions: 47 C.F.R. §§ 51.303, 51.305(a)(4), 51.311(c), 51.315(c)-(f), 51.317 (vacated only to the extent this rule establishes a presumption that a network element must be unbundled if it is technically feasible to do so), 51.405, 51.501-51.515 (inclusive, except for 51.515(b)), 51.601-51.611 (inclusive), 51.701-51-717 (inclusive, except for 51.701, 51.703, 51.709(b), 51.711(a)(1), 51.715(d), and 51.717, but only as they apply to CMRS providers), 51.809; First Report and Order, ¶¶ 101-103, 121-128, 180. We also vacate the proxy range for line ports used in the delivery of basic residential and business exchange services established in the FCC's Order on Reconsideration, dated September 27, 1996.

Iowa Utilities Board v. Federal Communications Commission, 1997 WL 403401, *32, fn 39 (8th Cir. 1997).[2]

This matter came before duly authorized Arbitrators of the Commission at the Commission's offices in Phoenix, Arizona on November 18, 1996. U S WEST, ACSI, AT&T, MFS, TCG, MCI, Brooks, Sprint, GST, the Residential Utility Consumer Office ("RUCO"), and the Commission's Utilities Division Staff ("Staff") appeared through counsel. All of the above parties, with the exception of Sprint, RUCO and Staff, sponsored pre-filed testimony as well as witnesses at the arbitration. The parties filed post-arbitration briefs on January 3, 1997 and January 24, 1997. In addition, the parties filed final proposals of cost outcomes on February 7, 1997 and February 13, 1997.

On August 30, 1996, U S WEST filed cost studies, which included TSLRIC and TELRIC cost studies. U S WEST further supplemented its cost studies on September 30, 1996, and filed nine new or revised cost studies on November 8, 1996. U S WEST's 1995 depreciation study was filed on November 18, 1996 as an exhibit to the supplemental rebuttal testimony of a U S WEST witness[3]. After the arbitration, on December 23, 1996, U S WEST submitted revised cost studies, in which four studies were updated, four used a revised customer transfer charge, and one totally new study was submitted.

B. Primary Focus of Proceeding

The primary focus of this proceeding is twofold: (1) to establish permanent prices for the

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[2] On rehearing, the Court also vacated 47 C.F.R. §51.315(b).

[3] The U S WEST depreciation study had previously been provided to Staff in October 1995.

unbundled loop and network elements, and (2) to establish a permanent discount rate for the resale of any telecommunications service. The FCC's proxy rates for Arizona are $12.85 for an unbundled loop and a resale discount range of 17-25 percent. In the individual arbitrations for the various CLECs, the Commission established an interim loop price of $21.76 and an interim resale discount rate of 17 percent, both of which were subject to a true-up.

Pursuant to the Act, Commission Rules, and other applicable law, the unbundled loop prices and the resale discount are derived from two distinct networks. The unbundled loop prices are based upon a forward-looking, least cost, efficient network, in order to stimulate economic efficiency. There was a wide disparity in the recommended loop costs, ranging from $11.46 (ACSI) to $30.20 (U S WEST). The resale discount is based upon the LEC's currently approved charges for services, less "avoided costs". The efficiency of the existing network is not part of the determination of the resale discount. The proposed "avoided cost" discount ranged from as low as 1.01 percent for certain services (U S WEST) to a high of 36.14 percent (AT&T).

Pursuant to the Act, Title 14 of the Arizona Administrative Code, and all other applicable law, the Commission hereby resolves the issues presented in the consolidated cost proceeding.

II. INTERCONNECTION AND NETWORK ELEMENT CHARGES

A. Cost Methodology for Network Elements and Interconnection

1. Cost Study Models

Issue: Whether to adopt a cost study model, and if so, which one.

U S WEST proposal

U S WEST designed a cost model which it used to run a number of cost studies. U S WEST stated that its model was the appropriate one to use in determining costs, as it was based upon the presently existing system, which it claimed was the most accurate method of determining replacement costs of the network. U S WEST inputted factors to trend for anticipated labor costs, inflation, revised cost of capital, estimates of difficulty of construction, and other items. U S WEST then ran a number of cost studies using its model, to estimate the cost of the various network elements. For its loop costs, U S WEST used the Regional Loop Cost Analysis Program ("RLCAP").

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AT&T and MCI proposal

AT&T and MCI sponsored an alternative cost study model, the Hatfield Model, Version 2.2, Release 2 ("Hatfield Model"), which they used as a basis for submitting a cost proposal. AT&T and MCI had initiated the development of the model to provide input to the FCC in developing proxy rates, and for use in proceedings such as the one herein.

AT&T and MCI contended that the Hatfield Model properly models an interconnection network and calculates the TELRIC according to the dictates of the Act, and in compliance with the FCC Order. AT&T and MCI claimed that the Commission should look to the FCC Order to provide guidance in setting prices, and that the FCC's TELRIC methodology is an extension of the TSLRIC methodology ordered by the Commission in its Interconnection Rules. According to AT&T and MCI, the Hatfield Model design is in compliance with the Act. The Hatfield Model considers the demographics and geology of each state in forecasting element costs, and was used by the FCC in the determination of proxy prices.

Other parties' proposals

A number of petitioners did not submit their own cost proposals. Parties recommended acceptance of the Hatfield Model as the more accurate of the two models proposed, or proposed revising U S WEST's model so that the inputs closely matched the Hatfield Model inputs. Certain parties suggested that U S WEST's model be rejected and the Hatfield Model be adopted on an interim basis, until U S WEST submitted cost studies which were in compliance with Commission requirements.

Commission resolution

Testimony indicated fundamental differences in the way the models were crafted, but the inputs - the factors to be considered by the models in running the study - ultimately determine the costs upon which rates will be based. Adjusting inputs in one model produced charges similar to the outputs from the other model, except for nonrecurring costs ("NRCs"). The Hatfield Model element costs include costs for which U S WEST sought to charge non-recurring fees.

We are not adopting either the Hatfield Model or U S WEST's cost study models as presented by the parties in its entirety. Both used certain assumptions which are not acceptable. The Hatfield Model uses certain inputs which may not reflect forward-looking, least cost, efficient network technology

and the current financial environment. The U S WEST models are based upon embedded costs and technology, and do not consider particular demographics and geology of the State of Arizona. Although the U S WEST models were supposed to represent forward-looking models, the results were similar to its embedded cost studies. This result was in spite of U S WEST's own acknowledgment that its existing system embodied different technologies installed over many years and did not represent the most efficient current technology. Furthermore, U S WEST claimed NRCs far in excess of tariffed charges. Despite imperfections in the Hatfield Model, it will be the starting point of our analysis from which to determine the cost of unbundled elements.

B. Annual Cost and Overhead Assumptions

1. Capital Structure and Cost of Capital

Issue: What capital structure and cost of capital should be used in calculating costs.

U S WEST proposal

U S WEST requested that the capital structure and cost of capital factored into approved element costs be revised from the capital structure authorized in Decision No. 58927 (Docket No. E-1051-93-183, January 3, 1995) as a result of its last ratemaking application, as follows:

	debt %	cost of debt	equity %	cost of equity	cost of capital
Decision No. 58927	38.30	7.09%	61.70	11.40%	9.75%
U S WEST Proposed	28.00	7.50%	72.00	12.85%	11.40%

All other parties' proposal

All of the other parties to this proceeding have requested that the last approved capital structure and cost of capital be used in this matter.

Commission's resolution

U S WEST's proposed capital structure is a "market value capital structure" based upon the "market values of debt and equity" as of December 31, 1995. We do not agree that a market value capital structure from year end 1995 is appropriate in this proceeding, especially in light of such evidence as Value Line's estimated debt ratio and U S WEST's recent issuance of one of the largest debt offerings in United States history. Likewise, we do not believe that the Hatfield Model defaults should be used,

because they are not reflective of U S WEST's actual capital structure. We believe that the actual capital structure should be used and find that the December 31, 1993 actual capital structure as used in Decision No. 58927 is appropriate because it reflects both the actual capital structure and increased competition. Decision No. 58927 recognized that the equity percentage was on "the high end of reasonable", but that with "increasing competition . . . [a] conservative capital structure" was appropriate for the company. Accordingly, we will use a capital structure consisting of 38.3 percent debt and 61.7 percent equity.

U S WEST presented testimony that its cost of new debt is 7.5 percent (including issuance costs) and that its cost of equity is 12.85 percent. We believe that U S WEST's actual cost of debt is the appropriate debt cost to be used, because it is most reflective of what terms U S WEST can obtain and therefore what its costs are. The Commission has repeatedly expressed its preference for use of objective market-based measures and we note that the previous determination of cost of equity was based upon the discounted cash flow analyses provided by Staff, RUCO, and U S WEST. At that time, we found that a reasonable range for the cost of equity was between 10.95 percent and 11.87 percent, and adopted the midpoint, or 11.4 percent as the appropriate cost of equity. We agree with U S WEST that competition, legislation, regulation, and market conditions have increased the risks faced by U S WEST's investors, however, we do not believe that U S WEST presented sufficient evidence to support its "estimated cost of equity" of 12.85 percent. We find that the appropriate cost of equity for this proceeding is 12.4 percent.

Accordingly, we will use a cost of debt of 7.09 percent and a cost of equity of 12.4 percent, for a total weighted cost of capital of 10.37 percent. The following is the approved capital structure and cost of capital:

Cost of Capital Structure

Capital Components	Percentage of Total	Cost	Composite Cost
Long-Term Debt	38.30%	7.09%	2.72%
Common Equity	61.70%	12.40%	7.65%
			10.37%

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2. Depreciation

Issue: Whether to use the Commission approved depreciation rate from U S WEST's last rate case or a revised depreciation rate.

U S WEST proposal

U S WEST proposed that the Commission accept revised, shortened depreciation lives for a number of elements. U S WEST claimed that shorter depreciation lives were necessary because the depreciation lives used in the rate case filed in 1993 were out of date. U S WEST submitted a depreciation study in 1995 which the Commission has never reviewed. U S WEST also claimed that shorter lives were necessary in the new era of competition, when equipment would need to be replaced earlier than in a monopoly environment in order to compete with companies using the latest technology. U S WEST indicated that AT&T's depreciation lives approved by the FCC were significantly shorter than the lives approved for U S WEST by the Commission.

U S WEST submitted a depreciation study performed by Technology Futures, Inc. ("TFI"), a company funded primarily by the regional Bell operating companies ("RBOCs") to perform depreciation studies to support requests to revise depreciation lives. U S WEST requested approval of the shortened lives recommended by TFI, except for buried, and aerial and underground copper cable, which U S WEST requested be shortened from TFI's recommendation of 20 to 15 years, and 14 to 11.3 years, respectively.

U S WEST's focus, and most of the testimony, concerned underground copper cable, as it comprises the majority of the local loop and therefore its approved life has a significant effect on the cost of the local loop. U S WEST stated that copper was outdated technology, and fiber would be replacing it in the loop. According to U S WEST, any new technology using copper was interim technology until fiber was available on the local loop.

All other parties's proposal

All of the other parties requested that the Commission adopt the depreciation lives used in Decision No. 58927, including 24 year lives for buried and underground copper cable[4]. The parties

[4] We also note that the GST witness acknowledged that depreciation lives approved by state commissions were generally longer than actual economic lives. The GST witness worked for 30 years for Southwestern Bell and was responsible for developing cost study methodologies to present to

contended that new technology such as Asymmetrical Digital Subscriber Line ("ADSL") service, which was being implemented on copper cable, prevented the copper cable from being outdated. The parties claimed that while U S WEST planned to replace copper cable with fiber, U S WEST's plan to replace interoffice copper first, then distribution and then feeder cable, would take over 20 years to complete, so it was premature to shorten copper's life now. The parties also indicated that U S WEST's Director of Construction in Arizona testified that copper presently has a field life of approximately 20 years. Certain of the parties suggested that if the Commission desired to shorten the life of underground copper cable, 20 years would be an appropriate alternative. In addition, some of the parties including Staff argued that U S WEST was precluded from changing its depreciation rates outside of a rate case pursuant to A.A.C. R14-2-102 ("Rule 102").

Commission's resolution

We concur that Rule 102 generally requires a public service corporation to seek a change in its depreciation rates as part of a rate application. Rule 102 further provides that a waiver of the requirements can be made if the Commission determines that there is good cause. It is not altogether clear that Rule 102 would apply in this case since we are not adopting depreciation rates affecting U S WEST end-user customers. In this case, the Commission is determining the appropriate depreciation lives to be used in determining the costs of a forward-looking, least cost, efficient network consistent with the Act, Commission Rules, and all other applicable law. We find that in this proceeding there is economic "good cause" to use depreciation rates that conform with a forward-looking, least cost, efficient network in an environment which is going to become more competitive.

Based on the evidence of this case, we find that the appropriate depreciation rates to utilize for setting CLEC rates would be those as set forth in the TFI depreciation study, including 15 years for underground copper cable. While those rates are generally based upon shorter lives than those approved in U S WEST's last rate case, they are more consistent with depreciation lives utilized in the interLATA arena and with the general proposition that increased competition will result in innovations occurring at a more rapid pace than in a monopoly environment.

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regulatory agencies.

3. Depreciation Reserve Deficiency

Issue: Whether U S WEST has a depreciation reserve deficiency, and if so, should it be recovered as part of this proceeding.

U S WEST proposal

U S WEST claimed that the historic asset lives set by the Commission in its rate proceeding were set artificially long in order to keep rates low. U S WEST claimed that TELRIC pricing would not allow it to recover its embedded costs, including this alleged capital reserve deficiency. U S WEST proposed to recalculate the depreciation of its elements based upon the new rates, and determine how much depreciation will not be recovered because of the alleged historical artificially low rates. It proposed to recover this depreciation reserve as a five year surcharge on unbundled local and tandem switching costs. If the Commission does not authorize such a surcharge in this proceeding, U S WEST proposed that the surcharge begin after its next rate case, so that it could charge the surcharge to its retail operations, to be passed on to its retail customers.

All other parties' proposal

All other parties requested that the Commission reject U S WEST's attempt to have a depreciation reserve deficiency recognized, and deny U S WEST's requested surcharge. The parties stated that U S WEST has not established that its asset lives as a monopoly are artificially long, or that asset lives should be shortened with the advent of competition. The parties believe that there is no basis for recalculating depreciation lives as of the last rate case, even if the lives are shortened in this proceeding, and that any revised depreciation life/rate should be on a going-forward basis.

The Act, § 251.d.A, specifically states that interconnection and element charges:

> (A) shall be-
> "(i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and
> "(ii) nondiscriminatory....

According to the other parties, any such surcharge would be based upon U S WEST's embedded costs, not the price of interconnection or a network element. They argue that the surcharge as originally proposed would be discriminatory, as carriers would bear the brunt of payment. They further argue that it would be a barrier to competition, because competitors would be forced to base their charge on more

than the interconnection or element cost, and would be more than U S WEST would charge for comparable service.

Commission resolution

A depreciation reserve deficiency surcharge would be in contravention of the Act, which is designed to encourage competition. U S WEST has not established that it in fact has a capital reserve deficiency, nor that it is appropriate to impute any revised rates to the time of the last rate case. No depreciation reserve deficiency will be recognized, nor any surcharge authorized at this time.

4. Corporate Overhead

Issue: What is the appropriate overhead expense factor to use in forward-looking, least cost, efficient network cost estimates.

U S WEST proposal

U S WEST requested an overhead factor of 22 percent as a markup over TELRIC, plus an additional 5 percent common cost factor. U S WEST stated that the factor was based upon the ratio of actual U S WEST overhead compared to direct expenses, using 1995 book costs. In its Reply Brief, U S WEST claimed that only the 5 percent factor was overhead, while the 22 percent is attributed costs.

ACSI proposal

ACSI estimated that U S WEST requested a 32.3 percent markup over its TELRIC to cover overhead expenses. ACSI claimed that U S WEST's request relied upon embedded costs; was not forward-looking; did not account for productivity gains likely to occur in a competitive environment; and U S WEST's analysis was not based upon cost causation principles.

ACSI recommended using a market surrogate to estimate the mark-up in a competitive environment. ACSI proposed use of BellSouth Telecommunications, Inc.'s mark-up for its competitive operations of 15 percent.

All other parties' proposal

All other parties proposed a ten percent overhead factor, pursuant to A.A.C. R14-2-1310.B.1. The Hatfield Model's default factor is also ten percent, based upon a regression analysis on the industry. The analysis produced a 13 percent overhead estimate, which the Hatfield Model reduced by three percent to reflect competitive market efficiencies.

AT&T estimated that U S WEST requested a 27 percent markup over direct expenses. Much of the discrepancy between the estimates of ACSI and AT&T appear to be caused by U S WEST's revisions to its claimed TELRIC price after the filing of ACSI's prefiled testimony.

Commission's resolution

A.A.C. R14-2-1310 authorizes forward-looking, least cost, efficiently incurred prices to include an assignment of verifiable indirect costs or a ten percent addition for indirect costs, at the election of the ILEC. As it would be difficult to determine the economically-optional allocation of joint and common costs and the likely asymmetry of access to the information, the incumbent LEC has the burden to prove the nature and magnitude of common costs. The FCC anticipated that common costs related to elements would be less than common costs associated with the TSLRIC. FCC Order ¶¶ 694-698.

U S WEST's overhead calculations are based upon embedded costs and include costs which are unconnected to an element's production, and therefore will be rejected. AT&T has not offered sufficient support for the ten percent overhead calculation. Although our Rules provide for a factor of ten percent when the ILEC has not substantiated its figures, based upon the evidence presented in this matter, it appears that ten percent is insufficient to cover overhead expenses.

The Hatfield regression study factor of 13 percent and the ACSI factor of 15 percent are appropriate reflections of overhead expenses. Therefore, we will adopt an overhead cost factor, including attributed, joint and common costs, of 15 percent.

5. Taxes

Issue: What is the appropriate tax rate to include as a factor in setting forward-looking, least cost, efficient network prices.

U S WEST proposal

U S WEST claimed that AT&T reduced the Hatfield Model default value from 40 to 34 percent, reducing the tax obligation for U S WEST. U S WEST proposed that a tax rate of 40.46 percent be used, to reflect a 39.7 percent effective tax rate.

AT&T proposal

AT&T proposed a 34 percent tax rate for state and federal taxes. The Hatfield Model includes other tax factors for local taxes and franchise fees. AT&T stated that the 34 percent tax rate reflects a

40 percent overall effective tax rate.

Commission resolution

We will approve a 39.7 percent effective tax rate for state and federal taxes.

6. Forward-Looking Network Modifications

Issue: What are the network equipment maintenance costs in a forward-looking, least cost, efficient network.

U S WEST proposal

U S WEST proposed adoption of its claimed 1995 maintenance expense, trended for inflation and productivity. U S WEST disputed the Hatfield Model's thirty percent reduction of U S WEST's maintenance cost estimate. U S WEST claimed that although TELRIC would involve new equipment, maintenance over the life of the equipment should be calculated, and therefore a maintenance cost reduction was inappropriate.

All other parties' proposal

The parties addressed this issue generally, advocating the Hatfield Model's costs as being the more reasonable of the two models. ACSI disputed U S WEST's trending for inflation and productivity, presenting testimony which indicated that any inflation or labor cost increases would be more than offset by productivity improvements in the telephone industry.

AT&T indicated that the factor input of a thirty percent reduction in maintenance expenditures was related to reduced maintenance costs of the latest generation equipment, not the newness of the equipment.

Commission resolution

Generally, the Commission concurs with the Hatfield Model's reduction in maintenance costs to reflect the latest generation of equipment. However, it is unclear if savings as high as thirty percent can be achieved. Based on the evidence presented, we find that the Hatfield reduction is on the high end of reasonableness. We find that approximately one-half of that amount, or a fifteen percent reduction, would be more reasonable.

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C. Network Design and Structure Modifications

1. Distribution Design

Issue: What is the appropriate network design and amount of facilities required to provide service to customers within a service area.

U S WEST proposal

U S WEST proposed that the RLCAP's distribution design be followed, or that the Hatfield Model's distribution line factor be doubled. U S WEST claimed that the Hatfield Model understates the loop plant mileage, as the Hatfield Model produces a cable sheath mileage factor which is 36 percent of the embedded system and 46 percent of RLCAP's estimated mileage.

AT&T proposal

AT&T proposed adoption of the Hatfield Model cable sheath mileage factor. Testimony revealed that U S WEST's embedded plant was reinforced over time. As sheath mileage was measured, U S WEST's placing more lines to the same area would increase the amount of sheath mileage. In a TELRIC estimate, the appropriate number of cables would be supplied to an area, removing the need to place more cable, and therefore would reduce sheath mileage.

Commission's resolution

We agree that an existing system built and reinforced over time would use multiples of the sheath mileage necessary in a forward-looking, least cost, efficient network. Therefore, the Commission adopts 26,092 miles for the cable sheath mileage factor, rather than that utilized in the Hatfield Model. The Commission will limit the effect on the loop price, as compared to the price resulting from utilizing the factor contained in the Hatfield Model, to the actual effect up to a maximum of $4.00, whichever is lower.

2. Feeder and Distribution Fill Factors

Issue: What feeder and distribution fill factors should be used in modeling a forward-looking, least cost, efficient network.[5]

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[5] Fill is the ratio of the number of a particular type telephone plant in use to the total number available. This factor will affect the cost of the loop, as it determines the amount of plant that must be installed in order to serve customers. Generally, higher fill factors reflect more efficient networks.

U S WEST's proposal

U S WEST proposed to use its historical actual average fill for distribution and feeder plant, which would be the ratio of plant currently in use in its system. U S WEST claims that approximately 35 percent of its plant is currently in use, and proposed to calculate feeder fill based upon an allowance of three telephone lines per living unit, which it stated that it put into effect in the field in the early 1990s.

All other parties' proposal

The parties claim that using the historical actual average fill of the presently existing network is inappropriate in a TELRIC environment. U S WEST's use of its present structure places the inefficiencies of a network built during the past 100 years, and rate base interests of a monopoly onto a theoretical system which is supposed to be built with the most efficient and advanced technology without rate base concerns.

The parties advocate use of the Hatfield Model's default inputs regarding feeder and distribution fill. The Hatfield Model uses achievable average fill, which inputs a fill range from 65 percent to 80 percent for feeder and from 50 percent to 75 percent for distribution, depending on the distribution group. The Hatfield Model then calculates the standard cable size which is large enough to support the inputted demand. After sizing for standard cable, actual fill factors in Arizona are 71.5 percent for feeder and approximately 51 percent for distribution cable.

The parties also request that anticipated demand be based upon two lines per living unit, rather than the three lines advocated by U S WEST. The parties state that U S WEST has not established a need for three lines per household. U S WEST presented evidence that as of May 1995, use was 1.1 lines per living unit, as approximately 108,000 of 1,610,870 access lines were second lines, 2,500 were third lines, and 370 were fourth lines.

Commission resolution

There were discussions at the arbitration of three possible fill factors: objective; achievable average; and U S WEST actual. The issue the Commission must decide is which one of these factors is most appropriate in a forward-looking, least cost, efficient network cost model. The objective fill of 85 percent would theoretically be the appropriate fill factor for an efficient network. However, that would not allow for any growth of the network. We agree that the actual fill rate of the U S WEST network is

not appropriate with a forward-looking, least cost, efficient network. We find that the use of achievable average fill factors of the Hatfield Model would be more representative of a forward-looking, least cost, efficient network. Accordingly, we will approve the fill factors utilized by the Hatfield Model. This will represent an efficient network while still allowing room for growth.

While the three lines per living unit allowance is not reflected in the May 1995 data, it must be recognized that we are utilizing a forward-looking, least cost, efficient network model in a scorched node environment. Historically there has been a lot of room for growth on the network; however, much of the slack has been taken out by utilizing a forward-looking, least cost, efficient network model. The cost of providing a third line initially is much less than adding one later. Accordingly, we will approve use of the three lines as proposed by U S WEST.

3. Placement: Easy v. Difficult

Issue: What is the appropriate difficulty of placement and techniques used, such as boring or trenching, to assume in constructing a forward-looking, least cost, efficient network in a scorched node environment.

U S WEST proposal

In estimating loop placement costs, U S WEST factored in whether placement would be easy or difficult. In its 1995 TSLRIC study, U S WEST estimated that 80 percent of loop placement would be easy, with the remaining 20 percent difficult, due to the cost of repairing or boring under property. After revising its study to estimate TELRIC, U S WEST claimed that 82 percent of placement in its region, including statewide, would be in developed areas, and therefore difficult. In addition, U S WEST claimed that boring would occur in 50 percent of the linear feet of cable placed in nonrural areas.

U S WEST used five density zone models for cable placement region-wide. The easy/difficult ratio used in its TELRIC study defined developed areas as ones in which loops presently exist. The TELRIC placement of existing loops was considered to be difficult. U S WEST forecast growth to be four percent per year, or 18 percent over five years. U S WEST concluded that 82 percent of the loops would be in developed areas, and 18 percent in undeveloped areas. The 82/18 was then applied to each central office category, assuming that 82 percent of loop construction in each density type, such as urban, suburban and rural, would be difficult, with the remainder being easy.

U S WEST claimed that the reversal in its estimate of loop placement difficulty was due to a

change in the manner in which placement was considered, not in the ease of placement itself. U S WEST originally estimated the incremental cost of adding each loop according to TSLRIC, and assumed that most new loops would be placed in currently undeveloped areas. U S WEST estimated the TELRIC of placing loops as though every loop had to be replaced, and most loops are in developed areas. U S WEST also assumed that it was the only utility which needed to place facilities to customers, and would not be able to share placement costs in developed areas with any other utility.

All other parties' proposal

The other parties criticized U S WEST's loop placement cost estimate. The parties claimed that U S WEST's reversal of its historical easy v. difficult placement ratio was unsupported and unreasonable. U S WEST assumed that it would use very costly boring techniques for fifty percent of the linear feet placed in developed areas, yet its construction witness testified that boring occurred only in 20 to 30 percent of the distance in developed areas. If, for example, conduit were already placed in developed areas, use of the conduit would not be considered difficult placement.

The parties indicated that when estimating the cost of placing plant, cost efficiencies for modern placement, and economies of scope and scale were supposed be realized. Instead, U S WEST estimated increased installation costs.

In addition, evidence indicated that U S WEST's estimated annual growth rate for Arizona is five percent, rather than the four percent included in RLCAP, which would yield a 39 percent easy placement ratio if RLCAP's methodology were accepted. The parties also stated that five years of growth is too short a time period for calculating TELRIC.

The parties also argued that RLCAP's application of the easy/difficult ratio statewide was illogical. RLCAP applied the percentage to all density groups, including rural. The result was an assumption that 82 percent of rural placement would be difficult. U S WEST's justification for the ratio in general was that laying cable to avoid obstacles such as streets, sidewalks, gardens, lawns, fences and sprinkler systems would be expensive. However, placement in rural areas, for example, even though considered to be 82 percent developed, would not necessarily require avoidance of such obstacles and the related higher costs assumed to occur in difficult placements. U S WEST's revised placement ratio significantly increased placement cost in rural areas, although supposedly responding to difficulties

encountered in a more urban environment.

Placement costs in the Hatfield Model are calculated based upon actual conditions within census block groups. The Hatfield Model determines the census block groups which exist in the State, and calculates installation costs related to the density of development.

TCG indicated that the population growth in Arizona means that a significant portion of access line growth would be in new residential subdivisions. Line placement in new subdivisions is paid for by the developer, pursuant to R14-2-506.E.3, regardless of whether growth is in a developed or undeveloped area. TCG also disputed U S WEST's contention that high installation costs will be incurred by U S WEST in a scorched node environment. TCG stated that all residential connections may be considered new, and developer-provided, in a scorched node environment. RLCAP also did not consider feeder and distribution costs advanced by developers, which also is done routinely.

Commission resolution

RLCAP is flawed in its limitations. It allows for only five density configurations in U S WEST's 14-state region. It applies the same easy/difficult placement ratio everywhere across the State, although it is unlikely that placement difficulty is the same everywhere. The RLCAP input assumptions were contradicted by U S WEST's own witnesses.

The Hatfield Model was attacked because its inputs are in part derived from the memory of one particular engineer. However, the Hatfield Model's method of calculating placement based upon the density of census block groups is superior to RLCAP's method. The input source was subject to cross-examination, and in general, the overall cost inputs are reasonable. Differences between the U S WEST model's method of construction and the Hatfield Model's method often are resolved when realizing that the Hatfield Model is based upon the TELRIC method, using the most efficient technology, rather than the method developed over history in a non-competitive environment. Therefore, the Commission will adopt the Hatfield Model's method for calculating placement costs.

4. Shared Structure

Issue: Whether costs for cable placement would be shared with another utility in a "scorched node environment."

U S WEST's proposal

U S WEST proposed that the percentage of the cost that would be borne by it in the theoretical scorched node environment, in which the network between the central offices and end users was installed using the least cost, most efficient technology, would be the same as had occurred historically. U S WEST presented an historical pattern of the percentage of the cost of placement of facilities it has paid, for both distribution and feeder plant as follows:

Aerial	50 percent
Underground	100 percent
Buried	83 percent[6]

U S WEST claimed that its aerial facilities have been shared by one other utility, and 17 percent of the time it has been able to place its facilities in developer-supplied trenches.

All other parties' proposal

The other parties requested that the Commission adopt the Hatfield Model defaults for shared facilities. The Hatfield Model assumes that in a scorched node, competitive environment, the ILEC would pay one-third of the cost of installing distribution and feeder facilities, either by sharing installation with two other utilities, or using developer-provided trenches. Testimony in support of the Hatfield Model default indicated that in a competitive environment, an ILEC would have both an incentive to share placement costs and interested competitors with whom to share the cost.

The parties point out that while the attachments to the closing statement indicate that RLCAP assumes 50 percent sharing for aerial facilities, other evidence indicates that RLCAP does not assume that any sharing exists.

Commission's resolution

The Commission finds the sharing of costs between U S WEST and other utilities shall be:

Aerial	50%
Buried	50%
Underground	50%

5. <u>Geographic Deaveraging</u>

Issue: Whether rates and charges should be geographically deaveraged, and if so, when.

U S WEST proposal

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[6] A U S WEST witness indicated that 23 percent, rather than 17 percent, of buried cable was being placed in developer-provided trenches.

It is unclear whether U S WEST supported geographic deaveraging of the unbundled loop cost. If the cost is to be deaveraged, U S WEST requested that deaveraging not occur until it is authorized to charge its retail customers a deaveraged price. Otherwise, competitors could obtain the unbundled loops of urban customers at a deaveraged element price, and purchase longer loops at a non-deaveraged retail cost less the avoided cost discount. U S WEST would be left with the obligation to maintain more expensive, longer loops without receiving offsetting revenues of either higher averaged loop prices or higher deaveraged long loop prices.

All other parties' proposal

All other parties proposed that loop costs should be deaveraged in this Decision. The parties claimed that the FCC directed in ¶ 743 of its Order that element rates should reflect the way in which costs are incurred and this requires geographic deaveraging. Paragraph 765 of the FCC Order, which was stayed at the time of the arbitration, required that prices be deaveraged into a minimum of three geographic zones. Less dense, longer loops cost more than more dense, shorter loops typically found in urban areas.

The CLECs claimed that delayed deaveraging would repress the development of facilities-based competition, as loops in the urban areas would be overpriced. Competitors would not build their own loops, as their TELRIC's would be higher than U S WEST's, without U S WEST's economies of scope and scale.

Element cost deaveraging would have a significant effect on prices. For example, AT&T proposed using six price zones, based upon the number of loops per square mile. Its proposed state average cost of $13.94/month per aggregated loop would vary from $9.66/month for the most dense price zone to $99.83/month for the least dense price zone.

Commission resolution

While the Act requires cost-based rates, it leaves to the discretion of the individual state whether or not the rates should be cost-based on a state-wide basis or cost-based to reflect geographic deaveraging. The FCC Rules' requirement that costs be deaveraged into a minimum of three zones has been overturned by the Court. We do not find the record in this proceeding provides a proper basis for geographic deaveraging. Even if there was sufficient evidence to support geographic deaveraging, we

share U S WEST's concerns that geographic deaveraging would need to occur for U S WEST retail customers at the same time it occurs at the wholesale level.

We will direct the Hearing Division to set a proceeding to determine whether it is appropriate to geographically deaverage rates established pursuant to this Decision, and if so, what method should be used to set the deaveraged rates and when they should become effective.

D. Element Price Factors Affecting Loop Costs

1. Terminal Investment

Issue: What is the cost of installing a terminal and line splicing to distribute the copper loop to an end user.

U S WEST proposal

U S WEST proposed adoption of its claimed current cost for installation of a terminal and splicing of $280.80 to serve three lines, for a per line cost of $93.60.

All other parties' proposal

The other parties requested that the Commission adopt the Hatfield Model input for terminal installation and line splicing of $35 per line. AT&T asserted that the Hatfield Model default cost was based upon installation using a pedestal terminal method which could serve eight living units, and which was a more modern and cost-efficient method than the method and related pricing factor used by U S WEST. AT&T also claimed that the terminal installation method was used in parts of Arizona.

Commission's resolution

In keeping with a forward-looking, least cost, efficient network methodology, the Commission adopts the Hatfield Model default cost for terminal installation and splicing. However, we find it reasonable that the pedestal terminal method could serve four living units. Accordingly, we will adjust the Hatfield per line cost to $70.00.

2. Drop Investments

Issue: What is the cost of running a telephone line to the end user.

U S WEST proposal

U S WEST claimed that the average cost of a drop and network interface device ("NID") is $92

per household.[7] U S WEST proposed that drop costs in a least cost, most efficient technology environment would be the same as its historical cost.

All other parties' proposal

The parties claimed that U S WEST either overstated its drop cost or must be inefficient. Evidence was presented in support of the Hatfield Model default calculation of $70 per drop and NID installation.

Commission resolution

Pursuant to the Act, Commission Rules, and other applicable law, pricing is to be based upon the forward-looking, least cost, most efficient technology. We do not accept U S WEST's claim that its present cost of installation uses the most efficient technology possible. We therefore adopt the Hatfield Model default calculation of drop and NID installation costs.

3. 4-Wire Loop Cost

Issue: What is the appropriate charge for a 4-wire loop.

U S WEST proposal

U S WEST proposed a 4-wire loop cost of $57.21, almost double the $30.20 cost of a 2-wire loop.

ACSI proposal

ACSI proposed that the 4-wire loop charge should be 4.2 percent higher than the 2-wire loop charge, citing U S WEST witnesses who testified that the price differential between installing two or three pair of copper lines per household was based upon the cost of the additional length of cable.

AT&T proposal

Although there does not appear to be any difference in the itemized costs listed for 2 or 4-wire loops, AT&T proposed that the aggregated state average for the 2 and 4-wire loop to be $13.94 and $27.37 per month, respectively.

Commission resolution

There was no evidence of more or different equipment being used for a 4-wire loop rather than a 2-wire loop. It appears reasonable that placing a 4-wire loop should not be significantly more

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[7] When revising the Hatfield Model with U S WEST inputs, it stated that the RLCAP cost was $94.36.

expensive than placing a 2-wire loop. The Commission will adopt ACSI's proposal regarding the 4-wire loop charge.

E. Service Provisioning Costs

1. Unbundling Integrated Loops

Issue: How the expense should be borne for unbundling loops from an integrated digital loop carrier.

U S WEST proposal

U S WEST proposed to include in the price of the unbundled loop the cost of equipment to route the loop to a CLEC. U S WEST presented testimony that when a loop is provisioned on an integrated digital loop carrier ("IDLC"), either equipment must be added to the loop to enable it to be pulled from the IDLC and routed to a CLEC, or the loop must be hair pinned into and out of a switch termination before routing to a CLEC.

In its Reply Brief, U S WEST claimed that it would be necessary to add equipment to the IDLC loop to hairpin it to a CLEC. U S WEST stated that the cost of the additional equipment would be more than the cost of the unbundling equipment.

ACSI proposal

ACSI emphasized that U S WEST's testimony indicated that only five percent of loops are IDLC provisioned and would need additional equipment to be rerouted. A CLEC purchases a loop to serve a particular customer, without consideration of whether the loop is on an IDLC. ACSI proposed that to retain competitive neutrality, the cost of the additional equipment on five percent of the loops should be spread over all loops.

AT&T proposal

AT&T proposed that no charge be assessed to the loop price for routing of IDLC provisioned loops. AT&T indicated that options other than the unbundling equipment U S WEST claimed was necessary, such as hair pinning. As U S WEST did not claim until its Reply that the cost of equipment necessary to perform this option was more expensive than the cost of the unbundling equipment, AT&T has not had the opportunity to respond to U S WEST's allegation.

Commission's resolution

We adopt the positions of AT&T and ACSI that the Hatfield Model includes the cost of IDLC

unbundling. U S WEST may pursue dispute resolution or request the Commission's assistance if it can establish that the Hatfield Model does not include the costs as inherent within the loop result.

2. Transport and Termination Charges

Issue: Whether charges for transport and termination should be adopted at this time or at the end of the bill and keep period, and what prices satisfy the Act's requirements that charges be incrementally based, and provide for mutual and reciprocal recovery of costs.

U S WEST proposal

U S WEST proposed that the Commission adopt its recommended rates for transport and termination. U S WEST restated its opposition to the bill and keep arrangement approved by the Commission during the onset of competition, and requested that costs be adopted which will be put into effect if the Commission's Orders regarding bill and keep are overturned.

All other parties' proposal

Since bill and keep has been adopted for the present time, the other parties believe that no costs for transport and termination need to be adopted at this time. The parties have been unable to operate U S WEST's switching cost model, and therefore are not able to thoroughly review and challenge U S WEST's calculations.

MCI's alternative proposal

MCI proposed that in keeping with the FCC Order ¶ 1085, symmetrical, reciprocal rates for transport and termination be adopted. This would permit a CLEC to obtain the same price from U S WEST for use of its network as it has to pay U S WEST to use its network. MCI proposed that the Hatfield Model rates be adopted. MCI recognized that U S WEST's transport and termination costs may be higher than costs for CLECs which employ the latest technology. MCI indicated that asymmetrical rates based upon actual costs would be anticompetitive, as it would penalize a competitor with newer and less expensive technology.

Commission resolution

For the parties who have not qualified for interim bill and keep, we will adopt transport and termination costs as estimated in the Hatfield Model.[8] However, upon termination of the interim bill and

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[8] A carrier which was unable to establish that its service territory was equivalent to U S WEST's tandem switch territory may qualify for tandem switch treatment when it serves equivalent

keep period, any party may request a consolidated proceeding at which we will review the pricing inputs for appropriate adjustment. In the meantime, U S WEST should provide an operable switching cost model to the parties for their review.

3. Loop Conditioning

Issue: What is the appropriate charge, if any, for conditioning analog loops to provide digital services.

U S WEST proposal

U S WEST proposed an NRC of $557.12 whenever a loop is conditioned to provide digital service. Such conditioning may be necessary for the provision of integrated services digital network ("ISDN"), ADSL and high-bit rate digital subscriber line ("HDSL") service.

AT&T proposal

AT&T proposed that there should be no additional charge for conditioning a loop, as a conditioned loop is part of the network element.

ACSI proposal

Originally, ACSI proposed to pay an additional TELRIC to condition analog loops for digital service, but claimed that U S WEST did not submit a cost study regarding the issue. ACSI proposed in the interim that no additional charge be assessed, with a true-up when the TELRIC for conditioning is established.

In its Reply Brief, ACSI agreed with AT&T that the cost of conditioning be included in the forward-looking cost of the loop facility, and recommended that either no separate NRC be assessed or that the cost be capitalized and recovered through reasonable recurring rates. ACSI disputed U S WEST's conditioning cost study, asserting that U S WEST's requested NRC is more than two times the NRC currently charged to ISDN customers. ACSI also challenged the specific costs included in the conditioning cost.

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territory.

Commission resolution

U S WEST's loop conditioning charge is significantly overstated. We find that the loop conditioning charge should be the tariffed charge, less the NRC avoided cost discount.[9] If the Hatfield Model included a loop conditioning charge, it should be removed.

4. Nonrecurring Costs

Issue: Whether initial charges should be paid by CLECs to recoup expenses incurred by an ILEC when a service is established, disconnected or changed, or whether the cost should be included in the monthly recurring cost of the related element.

U S WEST proposal

U S WEST proposed NRCs in addition to the cost of network elements. After the arbitration, U S WEST submitted revised and alternative cost studies, acknowledging that certain functions for which a separate NRC was claimed may be incorporated in the loop NRC when the loop is provisioned, or may be eliminated when electronic interfaces become operational. One revision concerned the NRC for an expanded interconnection channel termination ("EICT") when connecting loops which terminate at an ILEC's main distribution frame to a CLEC's point of interconnection. Although originally requesting approximately $300 for the EICT NRC in addition to the loop NRC, after the arbitration, U S WEST stated that it would assess only the loop NRC if an EICT is ordered in conjunction with an unbundled loop.

ACSI proposal

ACSI focused on the NRCs for unbundled loops and EICTs. ACSI's testimony indicated that U S WEST's EICT charge was duplicative when ordered with the unbundled loop, and that the cost studies U S WEST submitted were for digital design circuits, not plain old telephone service. ACSI claimed that U S WEST's studies did not account for cost savings to occur due to the implementation of mechanization processes in 1997; that excessive testing costs were included in the loop price when a competitor desired to narrow the time period during which a service changeover would occur; that U S WEST's cost studies assumed that certain activities, such as customer premises visit, would occur with every loop provisioning, when they may not occur; that the studies include functions associated with U

[9] See Avoided Cost Discount, Issue II.C below.

S WEST's switch which are not unbundled loop activities; that the cost of disconnecting the loop and cross-connect are included improperly; that the studies assume connection through a point of termination bay ("POT") rather than directly to the main distribution frame; and that the studies do not reflect economies of scope and scale.

ACSI proposed that the appropriate NRC for the loop and cross-connects would be U S WEST's TSLRIC plus shared costs for establishing 1FB service, which U S WEST testified was $42.70. ACSI proposed that the NRC should be no greater than the charge that applies when U S WEST establishes exchange service for a retail customer.

ACSI objected to U S WEST's revised NRC, even after deducting the EICT charge, ordering and testing expenses. ACSI indicated that the remaining NRC still includes a disconnect charge, and overhead charges of approximately 100 percent over the remaining TELRIC.

AT&T proposal

AT&T claimed that the Hatfield Model element costs are based upon both recurring and NRC as reported by U S WEST in the Automated Report Management Information System ("ARMIS"), and therefore, any NRCs in addition to Hatfield Model rates would allow U S WEST to double recover its costs. The Hatfield Model calculates many of the NRCs as recurring charges, to avoid creating a barrier to competition in the telecommunications industry. Recovery of NRCs through recurring charges is permitted in the FCC Order ¶ 749.

AT&T stated that it was not able to fully evaluate the cost studies filed shortly before the arbitration, and that the studies filed after the arbitration should not be considered. AT&T claimed that U S WEST was attempting to use NRCs as a barrier to competition, which was reflected in U S WEST's high proposed NRCs compared to charges assessed to retail customers.

Commission resolution

It appears that the cost study models provide similar results if inputs are consistent. However, the models provide significantly different outcomes when the results are translated into the cost of elements to be purchased from an ILEC. The Hatfield Model prices yield the cost of elements, and the computation of services which may be derived from a combination of the elements. The U S WEST cost

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studies add NRCs, which it claims are the cost of performance functions, to the actual prices of many of the elements.

U S WEST's proposed NRCs, if approved, would act as barriers to competition. A CLEC would have to pay U S WEST charges significantly in excess of the charges U S WEST would assess its end-users. If the CLEC would then attempt to recoup those charges from prospective customers, it could significantly affect its ability to compete. U S WEST has not satisfied its burden to establish that these costs are reasonable, and the information was provided without sufficient time for the competing carriers to properly analyze.

U S WEST significantly overstated its NRCs. Consistent with our resolution for the loop conditioning charge, we will approve the current tariffed charges for NRCs, less the NRC avoided cost discount. The Hatfield Model costs will be used for any non-tariffed NRCs. To the extent that U S WEST believes that there are NRCs not compensated by the Hatfield Model prices, it may request an additional proceeding at which it may present cost studies consistent with the methodology approved herein to justify its price proposals. However, we want to make it clear that any additional cost studies must be provided to the other parties in a timely manner.

We find that AT&T's proposed $5.00 customer transfer charge is appropriate and should not be discounted.

F. CLEC Cross-connect

1. Cross-connect Between CLECs

Issue: When CLECs which are in collocated space in an ILEC's facility desire to connect their networks to each other at that location, what type of cross-connect is appropriate; who may perform the connection; and what is the proper cost of the cross-connect.

U S WEST's proposal

U S WEST proposed that CLECs which want to cross-connect in U S WEST's collocated space be required to interconnect through EICTs on their terminations at a POT bay. U S WEST proposed to charge for the installation of a POT bay and an EICT, as well as design circuit installation of the EICT.

The other parties' proposal

ACSI proposed that, pursuant to FCC Order ¶¶ 594 and 595, carriers should be permitted to connect directly with each other, without traversing U S WEST's network or a POT bay. If U S WEST

provides the connection, it should be compensated on a time and materials basis. If the carriers are not allowed to connect directly, U S WEST should be limited to installing and charging for one EICT at an existing POT bay, without a recurring charge. The other parties agreed with ACSI's request that the CLECs should be allowed to cross-connect directly with each other where feasible.

Commission resolution

While the FCC Order requires ILECs to permit interconnection between CLECs collocated at the same ILEC facility, it concludes that ILECs need not permit connecting transmission facilities outside of the collocation area. FCC Order at ¶ 595. The FCC Order also grants to ILECs the option to provide the connection or to permit CLECs to perform the connection.

Similarly, we recognize that safety and liability concerns justify U S WEST requiring that its personnel perform the interconnection between non-adjacent collocating CLECs. In those instances, U S WEST should provide the interconnection between collocation cages in the most cost-efficient manner that is acceptable to the CLECs. However, where CLECS' collocation cages are adjacent, U S WEST may not prohibit CLECs from interconnecting their own networks with facilities they provide, as long as those facilities do not cross spaces in use by U S WEST. The collocating CLECs, whether adjacent or non-adjacent, may elect to provide the cables or other facilities necessary to perform the collocation.

CLECs may choose to connect through an EICT. If a POT bay is present already, the CLECs should be charged only the cost of an EICT.

III. PRICING OF WHOLESALE SERVICES

A. Avoided Versus Avoidable Costs

Issue: The Act, § 252.d.3, provides that wholesale rates should be determined "on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier." Whether a cost that "will be avoided" is limited to costs which, in the discretion of the ILEC, actually are avoided, or would it include costs which are avoided by a reasonable ILEC in the efficient performance of its wholesale business.

U S WEST proposal

U S WEST interpreted the Act's provision to mean that only expenses which are actually avoided should be included in the avoided cost discount applicable to resale services. U S WEST claimed that only the net costs it will avoid when selling services wholesale should encompass the resale discount,

adding expenses it claimed would be incurred in wholesaling its products.

All other parties' proposal

All other parties proposed that the FCC Order's interpretation of the Act § 252.d.3, although stayed at the time of the arbitration, be followed by the Commission. The FCC Order ¶ 911 indicates that states should "make an objective assessment of what costs are reasonably avoidable when a LEC sells its services wholesale." The parties argue that the discount is not limited to expenses which a particular LEC actually avoids or eliminates when selling wholesale, but includes costs which an economically efficient competitor would avoid as a result of providing services at wholesale rather than retail.

The CLECS request adoption of the FCC's position that costs of serving customers are presumed avoidable; and indirect expenses, such as overhead, are presumed partially avoidable. By definition, a reseller's margin is the wholesale price less the reseller's own retail and overhead costs. The CLECs believe that a reseller should not have to pay the ILEC's unrelated retail costs in addition to its own, because if the wholesale price is inflated, a reseller may be unable to compete. Likewise, ILECs should not be able to manipulate the discount by declining to reduce certain expenditures.

Commission resolution

The Act § 251.c.4 requires that services be offered for resale at wholesale rates. Section 252.d.1 of the Act requires that interconnection and network element charges be based on the cost of providing the interconnection or network element. In keeping with the provisions of the Act which do not allow for assessing charges not incurred in the provision of an item, the charge for wholesale services should not include charges for interconnection, the sale of network elements, or the service of retail customers. In addition, wholesale charges should not include charges for services which the reseller provides itself, at its own expense, such as advertising. A reseller cannot be expected to compete if paying twice for the cost of a service While the Act uses the phrase "avoided costs", the interpretation must include costs which would be avoided by a wholesaler acting in a just and reasonable manner.

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B. Resale - TSLRIC v. Embedded Costs

Issue: Should the wholesale discount be the percentage of costs saved from the most efficient, least cost method of producing the service at retail, or should the discount be the retail price less the costs saved when selling at wholesale rather than retail.

U S WEST proposal

U S WEST proposed that the avoided cost discount be based upon the amount of the TELRIC for each element that it estimated will be avoided in a service offered for resale. U S WEST disputed the FCC's preclusion of a TSLRIC study to establish wholesale rates that are not related to retail service rates. FCC Order ¶ 915.

MCI proposal

MCI proposed that the FCC's method, which was stayed at the time of the arbitration, is consistent with the Act and should be used as guidance to determine the proper method. MCI followed the FCC's guidance in its proposal for which categories of costs are avoidable by an economically efficient carrier selling at wholesale, and the percentage of each category which is avoidable. MCI then applied the percentage avoidable to each category of publicly available U S WEST cost data for 1995, yielding a percentage of its total costs which would be avoidable. MCI based the discount on U S WEST's embedded costs, using actual expenditures rather than TSLRIC.

AT&T proposal

AT&T proposed to use the ratio of U S WEST's total ARMIS costs less interstate costs to local service and intrastate revenues as the avoided cost discount. AT&T used Bell Atlantic data to determine costs typically incurred in interstate revenue.

Commission resolution

The Commission generally approves the methodology used by MCI in calculating the avoided cost discount. U S WEST's retail rates have been set on an embedded cost basis, in compliance with rate of return on rate base methodology. It would be improper to set the discount based upon the amount of forward-looking costs which would be avoided, as prices were not set using such methodology. To do so would yield a discount which would assume efficiencies in U S WEST's expenditures, while discounting prices which were set without consideration of efficient operating costs.

C. Avoided Cost Discount

Issue: What is the proper discount from retail price for a wholesale service, and how is the discount calculated.

U S WEST proposal

U S WEST stated that the avoided cost discount level should not be set too high, or facilities-based competition will be discouraged in favor of reselling services at a discount. U S WEST claimed that it reviewed each expenditure attributable to the TELRIC of each element, to evaluate which expenditure would cease when wholesaling. U S WEST proposed avoided cost discounts based upon types of services, as follows:

8.17 percent for basic exchange business, including PBX
4.41 percent for ISDN/ACS services
4.35 percent for toll, including MTS, WATS and 800 service
1.01 percent for listing services, central office features and information services
3.86 percent for basic exchange residential
8.64 percent for private line service

U S WEST disputed many assumptions of the AT&T avoided cost study. U S WEST criticized AT&T's single discount for all services as being without basis. U S WEST had criticized AT&T's previously submitted cost study, which had varied discounts for different services. U S WEST claimed that AT&T's discount ratio allows it to claim avoided costs on items which are not subject to a resold discount, such as access services. Although still disputing AT&T's methodology, U S WEST recalculated the discount after adjusting for items U S WEST claimed were included improperly. These adjustments reduced AT&T's discount from 36.14 percent to 16.53 percent.

U S WEST also stated that MCI's cost study was flawed for a number of reasons. Although still disputing the MCI study, U S WEST recalculated MCI's discount based upon revisions to MCI's calculations, resulting in a weighted discount revised from 22.5 percent to 14.09 percent. U S WEST also contended that MCI's single discount is misleading, and in its Reply Brief, provided the following service breakdown based upon the "corrected" MCI methodology:

Business and PBX	12.85%
ISDN	19.69%
Toll	17.25%
Vertical Features	44.02%
Residential	7.00%
Private Line	13.74%

MCI, TCG and AT&T proposal

MCI and AT&T have submitted separate and significantly different discount recommendations. MCI, TCG and AT&T agree that it is important to set the avoided cost discount at an appropriate level because too great a discount may discourage facilities-based competition and too small a discount would discourage any competition. Most companies anticipate competing as resellers before building their own facilities through which to compete, and too small a discount would not enable carriers to enter the market as reseller competitors. The CLECs believe that it is unrealistic to expect that many carriers will have the initial capital necessary for facilities-based growth. Further, carriers would not have the economies of scope and scale available to U S WEST, and would not be able to compete effectively on that basis.

MCI, AT&T and TCG argued that U S WEST's proposed discount was unreasonable, anticompetitive, and in violation of the Act, the FCC Order and other applicable law. As stated above, U S WEST claimed to subtract the TELRIC of the avoided elements from their currently approved costs, which were set on an embedded basis. U S WEST removed only those costs which it actually would not incur, instead of the costs which would not be incurred in support of a wholesale business. U S WEST also added such costs as marketing and product management. However, U S WEST has not indicated any willingness to provide its data or conclusions to the CLECs for any shared benefit.

The parties also disputed the method U S WEST used to calculate its avoided cost. Rather than the percentage of retailing activities U S WEST will avoid when wholesaling, U S WEST compared expenses to revenues, without accounting for any avoided return and taxes. U S WEST's method resulted in a percentage which would yield the same absolute dollars of profit whether wholesaling or retailing, which would result in an increased profit margin for wholesaling.

MCI's proposal

MCI submitted an across-the board discount, claiming that U S WEST did not provide sufficient data for a service by service discount. MCI stated that U S WEST's revision of the MCI method, providing service by service discounts, was not provided in sufficient time to evaluate. In addition, as a service by service discount would likely yield a lower discount for residential services, such a discount would be a barrier to entry into the residential market.

MCI used avoided expenses in its calculations, claiming that it did not need to calculate avoided return and taxes. In response to U S WEST's criticisms, MCI claimed that a portion of property taxes would be avoided with U S WEST's reduced need for staff and supporting facilities. MCI contended that the same portion of property taxes equal to the overall avoided cost discount will be avoided, so there would be no overall impact to its avoided cost discount if property taxes were added to its ratio. MCI responded to a number of specific criticisms by U S WEST of its methodology. MCI claimed that its proposed avoided cost of 22.5 percent resulted in the same profit margin whether retailing or wholesaling.

AT&T proposal

AT&T stated that it confirmed the validity of its study by substituting U S WEST data for the Bell Atlantic data. The substitution produced almost no change, verifying that the Bell Atlantic estimates were reasonable to use in estimating the appropriate avoided cost discount.

TCG proposal

TCG claimed that U S WEST's proposed discounts ranging from approximately 1 to 8 percent for costs avoided when wholesaling rather than retailing was unreasonable. Likewise, AT&T's proposal of 36.14 percent seemed unreasonably high. TCG proposed that an appropriate discount would be located somewhere between those two proposals, but did not propose its own method for obtaining the discount.

Commission resolution

U S WEST's inputs and calculations yields an avoided cost discount that is unreasonably low on its face. Its chosen methodology of subtracting avoided costs from forward-looking costs of retail activities is not a reasonable method, and is not in keeping with the Act's discount method. Section 252(d)(3) provides that wholesale prices shall be determined "on the basis of retail rates charged to subscribers for the telecommunication service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier." Pursuant to § 252(d)(3), calculation of a wholesale discount requires the deduction of avoided costs from the service's actual retail price. U S WEST's method does not adequately consider cost savings and efficiencies, including planned efficiencies, which reasonably would occur if it operated in a wholesale

environment.

AT&T's method is too generous in attributing cost savings to a wholesale business. AT&T has added to avoided costs the cost of services which would not be subject to an avoided cost discount. AT&T's method also considers costs that are avoidable, without attributing any costs to wholesaling. U S WEST added excessive and unsupported costs it claimed would be attributable to supporting its wholesale business. MCI added a reasonable amount of costs, by not deducting the full amount from certain retail categories, claiming that the remaining portion may be necessary in wholesaling.

In general, MCI's method appears to be the most reasonable in calculating the avoided cost discount. MCI estimated costs which reasonably would be avoided in selling at wholesale. While we generally concur with the methodology of MCI, there are areas of concern which we share with U S WEST. First, property taxes should not have been excluded from the denominator of the MCI avoided cost ratio. In addition, we are concerned with MCI's unsupported assumption that 90 percent of all marketing type costs would be avoided. We find that marketing should be discounted 75.44 percent, as indicated in U S WEST's prefiled testimony. The wholesale discount proposed by MCI will be reduced by approximately 2.28 percent as a result of the property tax and marketing adjustments. The resulting discount is 20.22 percent.

The discount should be weighted according to the different types of services. Residential services do not advertise, and likely would have a lower discount than most other services. Similarly, NRCs would have associated discountable overhead, but no advertising costs. Certain services, such as Centrex/Centron, already are offered at a discount for bulk purchasing. Vertical features are heavily advertised, with low actual costs, and should have a separate discount. The Commission approves the following discounts:

Business and PBX	18.00%
ISDN	18.00%
Toll	18.00%
Vertical Features	18.00%
Residential	12.00%
NRCs	18.00%
Private Line	18.00%

* * * * * * * * * *

Having considered the entire record herein and being fully advised in the premises, the

Commission finds, concludes, and orders that:

FINDINGS OF FACT

1. U S WEST is certificated to provide local exchange and intraLATA telecommunications services to the public in Arizona, pursuant to Article 15 of the Arizona Constitution.

2. On June 27, 1996, MFS filed with the Commission a Petition pursuant to the Act. On July 19, 1996, U S WEST filed its Response.

3. On July 17, 1996, TCG filed with the Commission a Petition pursuant to the Act. On August 12, 1996, U S WEST filed its Response.

4. On July 29, 1996, AT&T filed with the Commission a Petition pursuant to the Act. On August 23, 1996, U S WEST filed its Response.

5. On August 14, 1996, ACSI filed with the Commission a Petition pursuant to the Act. On September 6, 1996, U S WEST filed its Response.

6. By Procedural Order on August 30, 1996, the portions of the above dockets concerning U S WEST's cost studies and rates were consolidated for an arbitration proceeding set for November 18, 1996.

7. On August 30, 1996, U S WEST filed cost studies, which included TSLRIC and TELRIC cost studies.

8. On September 4, 1996, MCI filed with the Commission a Petition pursuant to the Act. On September 24, 1996, U S WEST filed its Response.

9. On September 4, 1996, Brooks filed with the Commission a Petition pursuant to the Act. On September 30, 1996, U S WEST filed its Response.

10. By Procedural Order on September 10, 1996, the cost studies and rates portions of MCI and Brooks' dockets were consolidated into the November 18, 1996 proceeding.

11. On September 11, 1996, Sprint requested intervention in the consolidated arbitration proceeding. By Procedural Order on September 13, 1996, Sprint was allowed to participate in the consolidated proceeding, conditioned upon its filing a Petition for arbitration of an Interconnection Agreement with U S WEST.

12. On September 23, 1996, Sprint filed with the Commission a Petition pursuant to the Act.

On October 15, 1996, U S WEST filed its Response.

13. U S WEST supplemented its cost studies on September 30, 1996.

14. On October 7, 1996, RUCO requested intervention in the consolidated arbitration proceeding. By Procedural Order dated October 9, 1996, the Commission granted RUCO leave to intervene.

15. On October 15, 1996, GST filed with the Commission a Petition pursuant to the Act. On October 21, 1996, the portions of GST's Petition concerning U S WEST's cost studies and rates were consolidated into the November 18, 1996 proceeding. On November 5, 1996, U S WEST filed its Response.

16. U S WEST filed nine new or revised cost studies on November 8, 1996.

17. U S WEST submitted a depreciation study to the Commission in October 1995.

18. U S WEST's 1995 depreciation study was filed on November 18, 1996 as an exhibit to the supplemental rebuttal testimony of a U S WEST witness.

19. The arbitration in the consolidated proceeding was held as scheduled, beginning on November 18, 1996 and concluding on November 27, 1996.

20. U S WEST submitted revised cost studies on December 23, 1996, in which four studies were updated, four used a revised customer transfer charge, and one new study was submitted.

21. On January 3, 1997, the parties filed their initial post-arbitration briefs.

22. On January 10, 1997, Cox filed with the Commission a Petition pursuant to the Act. On February 5, 1997, U S WEST filed its Response.

23. On January 23, 1997, MFS and GST filed a joint post-arbitration reply brief.

24. On January 24, 1997, the remaining parties filed their post-arbitration reply briefs.

25. On March 13, 1997, Cox and U S WEST filed a Joint Motion and Stipulation which, in relevant part, indicated that the parties agreed to be bound to the cost and pricing results arising from the consolidated cost arbitration proceeding.

26. On June 11, 1997, Cox filed an application to intervene in this proceeding, which was granted by Procedural Order on June 12, 1997.

27. The existing U S WEST network incorporates different technologies installed over many

years and does not represent a forward-looking, least cost, efficient network.

28. The results from the U S WEST embedded cost study were approximately the same as its cost study for a forward-looking, least cost, efficient network.

29. In its 1995 study, U S WEST utilized a 20/80 percent difficult to easy placement ratio.

30. In its 1996 study, U S WEST utilized an 82/18 percent difficult to easy placement ratio.

31. The Commission has analyzed the issues as presented by the parties and has resolved the issues as stated in the Discussion above.

32 The Commission hereby adopts the Discussion and incorporates the parties' positions and the Commission's resolution of the issues herein.

33. Exhibit A is the price list for unbundled elements, interconnection a[illegible] the resale discount in accordance with the Findings herein.

CONCLUSIONS OF LAW

1. U S WEST is a public service corporation within the meaning of Article XV of the Arizona Constitution.

2. U S WEST is an ILEC within the meaning of 47 U.S.C. § 252.

3. The Petitioners are public service corporations within the meaning of Article XV of the Arizona Constitution.

4. The Petitioners are telecommunications carriers within the meaning of 47 U.S.C. § 252.

5. The Commission has jurisdiction over the parties and of the subject matter of the Petitions.

6. The Commission's resolution of the issues pending herein is just and reasonable, consistent with the Act, the FCC Order and Rules, the Commission's Rules, and all applicable law, and is in the public interest.

7. There is economic "good cause" to use depreciation rates that conform with a forward-looking, least cost, efficient network in an environment which is going to become more competitive.

8. The burden of proof to establish a proper [illegible]ost basis under the Act was on U S WEST.

9. The prices for unbundled network elements are intended to recover the costs of a forward-looking, least cost, efficient network, not embedded costs.

10. Any depreciation reserve deficiency would be an embedded cost.

11. "Avoided costs" pursuant to the Act includes costs which would be avoided by a wholesaler acting in a just and reasonable manner.

12. Pursuant to the Act, the "avoided costs" discount is to be based on retail rates charged to subscribers for the telecommunications service requested.

ORDER

IT IS THEREFORE ORDERED that the Commission hereby adopts and incorporates as its Order the resolution of the issues contained in the above Discussion.

IT IS FURTHER ORDERED that all parties that are subject to a true-up mechanism for costs set forth in this Decision shall make the appropriate refunds/payments within 60 days of the date of this Decision.

IT IS FURTHER ORDERED that U S WEST Communications, Inc. shall file within thirty days of the date of this Decision, a schedule setting forth all rates and charges approved herein.

IT IS FURTHER ORDERED that the rates and charges approved herein shall be effective immediately.

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IT IS FURTHER ORDERED that the Hearing Division is directed to set a proceeding to determine whether it is appropriate to geographically deaverage rates established pursuant to this Decision, and if so, what method should be used to set the deaveraged rates and when they should become effective.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

COMMISSIONER - CHAIRMAN COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, JACK ROSE, Executive Secretary of the Arizona Corporation Commission, have hereunto set my hand and caused the official seal of the Commission to be affixed at the Capitol, in the City of Phoenix, this 30th day of January, 1998.

JACK ROSE
EXECUTIVE SECRETARY

DISSENT

SEE ATTACHED DISSENTING OPINION

DISSENTING OPINION

COMMISSIONER RENZ D. JENNINGS

NAME: U.S. WEST COMMUNICATIONS, INC. et al. (Arbitration)

DOCKET NO. U-3021-96-448 et al. OPEN MEETING DATE: January 9, 1998

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Genuine competition in local phone service has failed to emerge anywhere in the country two years after the passage of the 1996 Telecommunications Act. Because of amendments proposed and passed by my two colleagues, this Order is especially detrimental to competition in Arizona. It sets resale discounts well below what other states have done and it sets the unbundled loop rate way above what other states have done. Normally business-friendly Texas, for example, set the unbundled loop at $14.15, compared to $21.98 in this order. Texas also set a 21.64% resale discount rate, compared to this Order's 12% for residential and 18% for other services. This Order essentially confirms that we will have competition in name only.

The Recommended Opinion and Order (RO&O) of our three fine hearing officers was based on hearing the evidence in a lengthy hearing, reviewing the extensive record, and then writing a RO&O based on the evidence. The RO&O set the unbundled loop rate at $16.28 and established resale discounts ranging from 10.05% to 63.1%, or a weighted average of 20.22%.

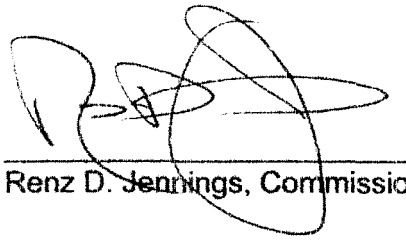
After U.S. West testimony in the 1995 rate case of $5.96 for the business loop and $11.46 for the residential loop (which the CLECS advocated for the unbundled loop in this case), the Commission set the price of 1FR residential service, which includes the loop, at $13.18. Then, only three years later, U.S. West hired a $375 per hour consultant, who after putting in enough hours to collect over a half million dollars, testified that the cost of the loop alone was $30.20. Through their amendments the majority has moved aggressively toward this latest U.S. West number and has sided almost totally with U.S. West, using "evidence" not in the record, such as post-hearing models when the results suit U.S. West. The majority has even gone beyond U.S. West's recommendation to set copper depreciation at 15 years. If the numbers the Commission majority has declared as "cost" are adopted in the next rate case, it assures a very huge rate increase for residential customers, perhaps as much as 70%.

At this point I'm going to go beyond the record myself to advocate future Commission action. Like the majority and many others, U.S. West also likes to talk Competition, as long as they can retain 99% of the market. Actually, U.S. West is sitting pretty in Arizona. It serves in one of the fastest growing states. It has the fastest growth of orders for second

phone lines for residential customers surfing the Internet. It has seen an increase in voice mail and caller ID, reportedly to 28% penetration in Arizona. It serves in a state with 80%+ of its population in 2 urban areas. Its stock is being touted as "sweet." Its share of monopoly directory publishing revenues, which Judge Greene said in the divestiture order should be used to hold down local rates, should be much higher than the $43 million agreed upon 10 years ago. In addition, because the Commission made a procedural error in imputing those revenues in the last rate case, U.S. West is collecting $17+ million/year plus another $34+ million voted by my two colleagues in Decision 60381 last summer. Apparently, despite all of the above and despite U.S. West being the "900 lb. gorilla" in Arizona, U.S. West has a Commission majority that views U.S. West as beleaguered. It is hard to envision that U.S. West needs rate relief, as they sometimes claim. In any case, I would challenge my two fellow commissioners to join me in issuing an Order to Show Cause with regards to U.S. West's earnings and rates

Instead of competition since the 1996 Telecommunications Act, we've had billions of dollars in mergers and acquisitions, lawyers by the carload arguing the "fine points" of the Telecommunications Act, U.S. West and the other BOCs doing everything possible to slow down competitive local interconnection, and potential competitors hesitant to put in facilities to compete with the existing $300 billion local networks (6X the long distance networks). It is ludicrous to think that competitors are going to duplicate or triplicate the local network in order to get a fraction of the customers. The real path to competition was framed in the RO&O, and the majority has dealt a severe blow to competition in Arizona with this Order. If the determination is made that the local telephone service is not conducive to both competition and a unified and universal national phone system, then we should take a different course. And if the majority and others around the country don't want competition in substance, they should forthrightly make the case that U.S. West and the other BOCs are and should remain natural monopolies and then convincingly regulate them. We would save spending billions more for competition in form only, which is what this Order provides.

I dissent.



Renz D. Jennings, Commissioner

SERVICE LIST FOR: AMERICAN COMMUNICATIONS SERVICES, INC. AND AMERICAN COMMUNICATIONS SERVICES OF PIMA COUNTY, INC.; AT&T COMMUNICATIONS OF THE MOUNTAIN STATES, INC.; MFS COMMUNICATIONS COMPANY, INC.; TCG PHOENIX; MCIMETRO ACCESS TRANSMISSION SERVICES, INC.; BROOKS FIBER COMMUNICATIONS OF TUCSON, INC.; SPRINT COMMUNICATIONS COMPANY, L.P.; and GST TUCSON LIGHTWAVE, INC.

DOCKET NOS.: U-3021-96-448; U-3245-96-448; E-1051-96-448; U-2428-96-417; E-1051-96-417; U-2752-96-362; E-1051-96-362; U-3016-96-402; E-1051-96-402; U-3175-96-479; E-1051-96-479; U-3009-96-478; E-1051-96-478; U-2432-96-505; E-1051-96-505; U-3242-96-527 and E-1051-96-527

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Appendix A

ARIZONA
Price List

In conformance with the June 13, 1997 and September 12, 1997 recommended order in Docket U-3021-96-448 et.al., and January 8, 1998 Commission order.

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UNBUNDLED NETWORK ELEMENTS			TARIFF (Note 10)	
Unbundled Loop				
Network Interface Device, Recurring **(Note 1)**	$	0.58		
Network Interface Device, New Customer, Nonrecurring **(Note 2)**	$	30.00		
Loop Distribution (Note 5 & 12)	$	15.33		
Unbundled 2 Wire Loop, Recurring (Note 5)	$	21.98		
Unbundled 4 Wire Loop, Recurring (Note 5)	$	22.90		
Residence Nonrecurring - Per 2 Wire Loop	$	40.92	Exchange & Network Services Tariff Sec 5.2.4	1FR
Business Nonrecurring - Per 2 Wire Loop	$	45.92	Exchange & Network Services Tariff Sec 5.2.4	1FB
Residence Nonrecurring - Per 4 Wire Loop	$	41.81	Exchange & Network Services Tariff Sec 14.2.1	ISDN
Business Nonrecurring - Per 4 Wire Loop	$	46.92		
Any Loop with Conditioning (One Time Charge)	$	114.80	Exchange & Network Services Tariff Sec 14.28.2	ISDN
Extension Technology, Recurring	$	6.75		
Switching (Note 3)				
Usage Per Minute	$	0.0028		
Per Port, Recurring	$	1.61		
Per Port, Nonrecurring **(Note 6)**	$	42.58		
Entrance Facility (Note 3)				
DS1, Electrical, Recurring	$	89.42		
DS3, Electrical, Recurring	$	357.16		
DS1, Electrical, Nonrecurring, First	$	256.87	FCC No. 5 Section 6 Page 225.1	
DS1, Electrical, Nonrecurring, Subsequent	$	256.87	FCC No. 5 Section 6 Page 225.1	
DS3, Electrical, Nonrecurring	$	256.87	FCC No. 5 Section 6 Page 225.2	

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UNBUNDLED NETWORK ELEMENTS

Direct and Dedicated Transport (Note 3)

DS0 Dedicated, Recurring	$	5.05		
		Fixed	Per Mile	USWC Proposed and adopted thru negotiation
DS1 - 0 Miles		None	None	
DS1 - Over 0 to 8	$	35.98	$ 0.65	
DS1 - Over 8 to 25	$	35.99	$ 0.94	
DS1 - Over 25 to 50	$	36.00	$ 1.75	
DS1 - Over 50	$	36.00	$ 1.59	
DS3 - 0 Miles		None	None	
DS3 - Over 0 to 8	$	243.17	$13.32	
DS3 - Over 8 to 25	$	246.15	$15.90	
DS3 - Over 25 to 50	$	250.66	$22.91	
DS3 - Over 50	$	249.26	$22.49	

Multiplexing, per arrangement

DS3 to DS1, Recurring	$	196.85	
DS3 to DS1, Nonrecurring	$	164.00	FCC No. 5 Section 6 Page 237.1

Common Transport/Tandem Transmission, Per Minute, Per Leg (Note 3)	$	0.00088	
Tandem Switching, Per Minute of Use (Note 3)	$	0.00140	

Signaling (Note 7, Note 4 & Note 11)

Entrance Facility

DS1, Electrical, Recurring	$	89.42	
DS3, Electrical, Recurring	$	357.16	
DS1, Electrical, Nonrecurring, First	$	560.88	FCC No. 5 Section 20 Page 15
DS1, Electrical, Nonrecurring, Subsequent	$	560.88	FCC No. 5 Section 20 Page 15
DS3, Electrical, Nonrecurring		$0.00	FCC No. 5 Section 20 Page 15

Direct Link Transport

		Fixed	Per Mile
DS1 - 0 Miles		None	None
DS1 - Over 0 to 8	$	35.98	$ 0.65
DS1 - Over 8 to 25	$	35.99	$ 0.94
DS1 - Over 25 to 50	$	36.00	$ 1.75
DS1 - Over 50	$	36.00	$ 1.59
DS3 - 0 Miles		None	None
DS3 - Over 0 to 8	$	243.17	$13.32
DS3 - Over 8 to 25	$	246.15	$15.90
DS3 - Over 25 to 50	$	250.66	$22.91

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DS3 - Over 50	$ 249.26	$22.49		
Multiplexing				
DS1 to DS0, Recurring	$ 200.08			
DS3 to DS1, Recurring	$ 196.85			
DS1 to DS0, Nonrecurring	$0.00		FCC No. 5 Section 20 Page 16	
DS3 to DS1, Nonrecurring	$0.00		FCC No. 5 Section 20 Page 16	
CCS Link -- First Link, Nonrecurring	$ 464.94		FCC Part 5 Section 20 page16	CCS Links
CCS Link -- Each additional Link, Nonrecurring	$ 147.60		FCC Part 5 Section 20 page16	CCS Links
STP Port -- Per Message, Recurring	$ 0.00005			
Signalling Link				
First Link, Recurring DS0	$ 24.85			
Additional Link, Recurring DS0	$ 24.85			
SCP/Databases -- Per Message	$ 0.00100			
ANCILLARY SERVICES				
Directory Assistance				
Price per Call -- Facilities-Based Providers	$ 0.28			
Listings				
Primary Listings, Directory Assistance, White & Yellow Pages	No Charge			
E911				
LEC and CLECs recover costs from PSAP	No Charge			
Assignment of Numbers				
Assignments per industry guidelines	No Charge			
Busy Line Verification				
Per Call	$ 0.72			
Busy Line Interrupt				
Per Call	$ 0.87			
Interim Number Portability				
Service Establishment, Per Route, Per Switch, Nonrecurring	$ 20.65			
Service Establishment, Per Ported Number, Nonrecurring	$ 4.47			
Service Establishment, Additional and Consecutive Numbers Per Number Ported, Nonrecurring	$ 3.32			

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PHYSICAL AND VIRTUAL COLLOCATION

Common Elements

Quote Preparation Fee, Nonrecurring **(Note 8)**	$ 1,381.54	FCC Part 5 Section 20 page31	Quotation Fee
Cable Splicing			
Per Setup, Nonrecurring	$ 375.40	FCC Part 5 Section 20page36	Cable Splicing
Per Fiber Spliced, Nonrecurring	$ 15.79	FCC Part 5 Section 20 page36	Cable Splicing
48 Volt Power, Per Ampere, Recurring, Per Month	$ 12.89		
48 Volt Power Cable			
20 Ampere Capacity - Recurring	$ 0.21		
40 Ampere Capacity - Recurring	$ 0.29		
60 Ampere Capacity - Recurring	$ 0.35		
20 Ampere Capacity - Nonrecurring	$ 59.14	FCC Part 5 Section 20 page34	Power Supply
40 Ampere Capacity - Nonrecurring	$ 80.69	FCC Part 5 Section 20 page34	Power Supply
60 Ampere Capacity - Nonrecurring	$ 95.34	FCC Part 5 Section 20 page34	Power Supply
Equipment Bay, Per Shelf Rack Space, Recurring	$ 6.41		
Inspector per 1/2 Hour, Regular	$ 24.49		
Inspector per 1/2 Hour, After Hours	$ 36.24		
Training per 1/2 Hour	$ 23.95		
Engineering per 1/2 Hour, Regular	$ 24.55		
Engineering per 1/2 Hour, After Hours	$ 35.25		

PHYSICAL AND VIRTUAL COLLOCATION (Note 9)

Common Elements

Installation per 1/2 Hour, Regular	$ 23.73
Installation per 1/2 Hour, After Hours	$ 33.20
Maintenance per 1/2 Hour, Regular	$ 22.20
Maintenance per 1/2 Hour, After Hours	$ 31.57

EICT CHANNEL TERMINATIONS (Note 13)

2-wire DS0 EICT, Recurring	$ 0.44
4-wire DS0 EICT, Recurring	$ 0.86
DS1 EICT, Recurring	$ 4.28
DS3 EICT, Recurring	$ 14.98

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2-wire DS0 EICT, Nonrecurring	$	383.30	FCC Part 5 Section 20 page32	Private Line Transport Service
4-wire DS0 EICT, Nonrecurring	$	383.30	FCC Part 5 Section 20 page32	Private Line Transport Service
DS1 EICT, Nonrecurring	$	256.87	FCC Part 5 Section 20 page32	Private Line Transport Service
DS3 EICT, Nonrecurring	$	269.78	FCC Part 5 Section 20 page32	Private Line Transport Service
EICT Regeneration				
DS1 EICT, Regeneration, Recurring	$	6.30		
DS3 EICT, Regeneration, Recurring	$	41.32		
DS1 EICT, Regeneration, Nonrecurring		$0.00		
DS3 EICT, Regeneration, Nonrecurring		$0.00		
Element Group 1				
Entrance Facility - 2 fibers, Recurring	$	1.52		
Entrance Facility - 2 fibers, Nonrecurring	$	1,184.74	FCC Part 5 Section 20 page33	VEIC Entrance Facility
Element Group 2				
Entrance Enclosure:				
Manhole - Per Month Per Manhole	$	13.81	AT&T Proposed Rates	
Handhold - Per Month Per Handhold	$	7.61		
Conduit & Interduct fm Entrance Enclosure to Cable Vault, Per Foot/Month	$	0.21		
Core Drill, Per Core, Nonrecurring	$	181.57		
Riser from Cable Vault to Customer Designated Equipment, Per Foot/Month	$	0.24		
Fiber Optic Cable (24 Fiber Increment), Per Foot/Month	$	0.03		
Fiber Placement in conduit and riser, Per Foot	$	0.83		
Copper Cable 25 Pair, Per Month, Per Foot	$	0.006		
Copper Cable Splicing - Per Splice	$	45.64		
Copper Cable Placement in Conduit and Riser - Per Foot	$	0.83		
Coax Cable RG59 - Per Foot Per Month	$	0.10		
AC Power Per WATT, Per Month	$	0.03		
Humidification Per Leased Physical Space	$	28.03		
Cage/Hard Wall Enclosure		ICB		
Rent (w/ Maintenance) - per square foot Zone 1, Recurring	$	2.75		
Rent (w/ Maintenance) - per square foot Zone 2, Recurring	$	2.26		
Rent (w/ Maintenance) - per square foot Zone 3, Recurring	$	2.06		

RESALE

Customer Transfer Charge		
Business	$	5.00
Residence	$	5.00
ISDN	$	5.00

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Resale Discount

Residential	12.00%
All other services	18.00%

Notes

1 Applicable where CLEC terminates its loop to a USWC NID.

2 Applicable only to new customers, new premise.

3 For companies that qualify for Bill and Keep, this charge will not apply in the event of Reciprocal Compensation. This Charge will be assessed upon the contract provisions.

4 Signaling Elements are taken from Hatfield with exceptions of DS1 and DS3 because Hatfield does not calculate these services.

5 Company proposing to use BFR has to overcome rebuttable assumption that Hatfield prices are appropriate. Applies to recurring charge only. BFR will be used for ordering, provisioning, including any additional equipment and NRCs.

6 This non-recurring charge does not apply in the event unbundled local switching is ordered with an unbundled loop. If Ordered through Switching, only one NR Charge Applies.

7 The USWC and AT&T rate structures differ. To establish rates, each party's rate structure has been retained, and the proposed rate halved, in accordance with the Arbitrator's order.

8 The QPF is credited to the payment for enclosure buildout, if priced on an ICB basis.

9 When purchasing Collocation, AT&T will pay the listed price for elements in Element Group 1 and Element Group 2.

10 PL: Competitive Private Line Transport Service Administrative Guidelines.

11 If Ordered Concurrent with the CCS Link, only one NR Charge Applies.

12 This includes the price of the NID. If a NID is not needed, the price is $14.74.

13 There will be no charge for an expanded interconnection channel terminationwhen such facility is ordered in conjunction with an unbundled loop.

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